IFW16

RAW SEQUENCE LISTING   DATE: 09/24/2004
PATENT APPLICATION: **US/10/054,665A**   TIME: 11:46:26

Input Set : **A:\875007US2.txt**
Output Set: **N:\CRF4\09242004\J054665A.raw**

```
  4 <110> APPLICANT: Engelhardt, John F.
  5        Duan, Dongshen
  6        University of Iowa Research Foundation
  9 <120> TITLE OF INVENTION: Adeno-associated virus vectors
 12 <130> FILE REFERENCE: 875.007US2
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C--> 14 <140> **CURRENT APPLICATION NUMBER: US/10/054,665A**
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 15 <141> CURRENT FILING DATE: 2002-01-22
 17 <150> PRIOR APPLICATION NUMBER: US 60/086,166
 18 <151> PRIOR FILING DATE: 1998-05-20
 20 <150> PRIOR APPLICATION NUMBER: US 09/276,625
 21 <151> PRIOR FILING DATE: 1999-03-25
 23 <160> NUMBER OF SEQ ID NOS: 14
 25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 20
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Adeno-associated virus
 32 <400> SEQUENCE: 1
 33 cgggggtcgt tgggcggtca                                          20
 35 <210> SEQ ID NO: 2
 36 <211> LENGTH: 19
 37 <212> TYPE: DNA
 38 <213> ORGANISM: Adeno-associated virus
 40 <400> SEQUENCE: 2
 41 gggcggagcc tatggaaaa                                           19
 43 <210> SEQ ID NO: 3
 44 <211> LENGTH: 505
 45 <212> TYPE: DNA
 46 <213> ORGANISM: Artificial Sequence
 48 <220> FEATURE:
 49 <223> OTHER INFORMATION: A synthetic consensus sequence
 51 <400> SEQUENCE: 3
 52 cgggggtcgt tgggcggtca gccaggcggg ccatttaccg taagttatgt aacgactgca    60
 53 ggcatgcaag ctcgaattca tcggtagata agtagcatgg cgggttaatc attaactaca   120
 54 aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcgctgagg   180
 55 ccgggcgacc aaaggtcgcc cgacgcccgg gctttgcccg ggcggcctca gtgagcgagc   240
 56 gagcgcgcag ctgcgcgctc gctcgctcac tgaggccgcc cgggcaaagc ccgggcgtcg   300
 57 ggcgaccttt ggtcgcccgg cctcagcgag cgagcgagcg cgcagagagg gagtggccaa   360
 58 ctccatcact aggggttcct tgtagttaat gattaacccg ccatgctact tatctacagc   420
 59 ttgcatgcat gtgagcaaaa ggccagcaaa aggccaggaa ccgtaaaaag gccgcgttgc   480
 60 tggcgttttt ccataggctc cgccc                                       505
 65 <210> SEQ ID NO: 4
 66 <211> LENGTH: 272
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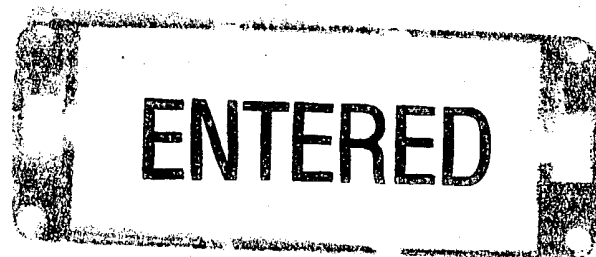
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 67 <212> TYPE: DNA
 68 <213> ORGANISM: AAV circular intermediate, clone p81
 70 <400> SEQUENCE: 4
 71 gcatgcaagc tgtagataag tagcatggcg ggttaatcat taactacaag gaacccctag      60
 72 tgatggagtt ggccactccc tctctgcgcg ctcgctcgct cactgaggcc gggcggccaa     120
 73 aggtcgcccg acgcccgggc tttgcccggg cggcctcagt gagcgagcga gcgcgcagag     180
 74 agggagtggc caactccatc actaggggtt ccttgtagtt aatgattaac ccgccatgct     240
 75 acttatctac cgatgaattc gagcttgcat gc                                   272
 77 <210> SEQ ID NO: 5
 78 <211> LENGTH: 300
 79 <212> TYPE: DNA
 80 <213> ORGANISM: AAV circular intermediate, clone p79
 82 <400> SEQUENCE: 5
 83 gcatgcaagc tgtagataag tagcatggcg ggttaatcat taactacaag gaacccctag      60
 84 tgatggagtt ggccactccc tctctgcgcg ctcgctcgct cactgaggcc gggcgcgcgc     120
 85 tcgctcgctc actgaggccg ggcgaccaaa ggtcgcccga gcccgggctt tgcccgggcg     180
 86 gcctcagtga gcgagcgcgc gcgcagagag ggagtggcca actccatcac taggggttcc     240
 87 ttgtagttaa tgattaaccc gccatgctac ttatctaccg atgaattcga gcttgcatgc     300
 89 <210> SEQ ID NO: 6
 90 <211> LENGTH: 272
 91 <212> TYPE: DNA
 92 <213> ORGANISM: AAV circular intermediate, clone p1202
 94 <400> SEQUENCE: 6
 95 gcatgcaagc tgtagataag tagcatggcg ggttaatcat taactacaag gaacccctag      60
 96 tgatggagtt ggccactccc tctctgcgcg ctcgctcgct cactgaggcc gggcgaccaa     120
 97 aggtcgcccg acgcccgggc tttggtcgcc cggcctcagt gagcgagcga gcgcgcagag     180
 98 agggagtggc caactccatc actaggggtt ccttgtagtt aatgattaac ccgccatgct     240
 99 acttatctac cgatgaattc gagcttgcat gc                                   272
101 <210> SEQ ID NO: 7
102 <211> LENGTH: 165
103 <212> TYPE: DNA
104 <213> ORGANISM: Unknown
106 <220> FEATURE:
107 <223> OTHER INFORMATION: SEQ ID NO:1 of U.S. Patent No. 5,478,745
109 <400> SEQUENCE: 7
110 aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg      60
111 ccgggcgacc aaaggtcgcc cgacgcccgg gctttgcccg ggcggcctca gtgagcgagc     120
112 gagcgcgcag agagggagtg gccaactcca tcactagggg ttcct                     165
114 <210> SEQ ID NO: 8
115 <211> LENGTH: 282
116 <212> TYPE: DNA
117 <213> ORGANISM: rAAV circular intermediate, clone p79
119 <400> SEQUENCE: 8
120 ggcgggccat ttaccgtaag ttatgtggcg actgcaggca tgcaagctcg aattcatcgg      60
121 tagataagta gcatggcggg ttaatcattg cctacaaaga gcccctagtg atggagtggg     120
122 ccactccctc tcttcgccga gcgcgcagag agggagtggc caactccctc actaggggtt     180
123 cctggcagtt aatgattaac ccgccatgct acttatctac agcttgcatg catgtgagca     240
124 aaaggccagc aaaaggccag gaaccgtaaa aaggccgcgt tg                        282
127 <210> SEQ ID NO: 9
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128 <211> LENGTH: 345
129 <212> TYPE: DNA
130 <213> ORGANISM: rAAV circular intermediate, clone p80
132 <400> SEQUENCE: 9
133 ggccatttac cgtaagttat gtaacgactg caggcatgca agctcgaatt catcggtaga        60
134 taagtagcat ggcggggttaa tcattaacta caaggaaccc ctagtgatgg agttggccac       120
135 tccctctctg cgcgctcgct cgctcgctca ggccgggcga ccaaaggtcg cccgacgccc       180
136 gcccggcctc agcgagcgag cgagcgcgca gagagggagt ggccaactcc atcactaggg       240
137 gttccttgta gttaatgatt aacccgccat gctacttatc tacagcttgc atgcatgtga       300
138 gcaaaaggcc agcaaaaggc caggaaccgt aaaaaggccg cgttg                        345
140 <210> SEQ ID NO: 10
141 <211> LENGTH: 276
142 <212> TYPE: DNA
143 <213> ORGANISM: rAAV circular intermediate, clone p81
145 <400> SEQUENCE: 10
146 ggccatttac cgtaagttat gtggcgactg caggcatgca agctcgaatt catcggtaga        60
147 taagtagcat ggcggggttaa tcattgccta caaagagccc ctagtgatgg agcccggcct       120
148 caccgagcga cgagcgcgc agagagggag tggccaactc catcactagg ggttccttgt        180
149 agttaatgat taacccgcca tgctacttat ctacagcttg catgcatgtg agcaaaaggc        240
150 cagcaaaagg ccaggaaccg taaaaaggcc gcgttg                                  276
152 <210> SEQ ID NO: 11
153 <211> LENGTH: 316
154 <212> TYPE: DNA
155 <213> ORGANISM: rAAV circular intermediate, clone p86
157 <400> SEQUENCE: 11
158 ggccatttac cgtaagttat gtaacgactg caggcatgca agctcgaatt catcggtaga        60
159 taagtagcat ggcggggttaa tcattaacta caaggaaccc ctagtgatgg agttggccac       120
160 tccctctctg cgcgctcgct cgctcgctga ggccgccccg gcctcagcga gcgagcgagc       180
161 gcgcagagag ggactggcca actccatcac taggggttcc ttgtagttaa tgattaaccc       240
162 gccatgctac ttatctacag cttgcatgca tgtgagcaaa aggccagcaa aaggccagga       300
163 accgtaaaaa ggccgc                                                        316
165 <210> SEQ ID NO: 12
166 <211> LENGTH: 208
167 <212> TYPE: DNA
168 <213> ORGANISM: rAAV circular intermediate, clone p87
170 <400> SEQUENCE: 12
171 ggccatttac cgtaagttat gtaacgactg caggcatgca agctcgaatt catcggtaga        60
172 taagtagcat ggcggggttac tcattgccta caaagagccc ctagtgatgg aattggaatg       120
173 attcaccctc catgctactt atctacagct tgcatgcatg tgagcaaaag gccagcaaaa       180
174 ggccaggaac cgtaaaaagg ccgcgttg                                           208
176 <210> SEQ ID NO: 13
177 <211> LENGTH: 310
178 <212> TYPE: DNA
179 <213> ORGANISM: rAAV circular intermediate, clone p88
181 <400> SEQUENCE: 13
182 gccatttacc gtaagttatg taacgactgc aggcatgcaa gctcgaattc atcggtagat        60
183 aagtagcatg gcggggttaat cattgcctac aaagagcccc tagtgatgga gttggccact       120
184 ccctctctgc gcgctcgctc gctgggcccg gcctcagcga gcgagcgagc gcgcagagag       180
185 ggagtggcca actccatcac taggggttcc ttgtagttaa tgattaaccc gccatgctac       240
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```
186 ttatctacag cttgcatgca tgtgagcaaa aggccagcaa aaggccagga accgtaaaaa      300
187 ggccgcgttg                                                             310
189 <210> SEQ ID NO: 14
190 <211> LENGTH: 334
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: A synthetic portion of the consensus sequence
197 <400> SEQUENCE: 14
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199 gccactccct ctctgcgcgc tcgctcgctc gctgaggccg ggcgaccaaa ggtcgcccga      120
200 cgcccgggct ttgcccgggc ggcctcagtg agcgagcgag cgcgcagctg cgcgctcgct      180
201 cgctcactga ggccgcccgg gcaaagcccg ggcgtcgggc gacctttggt cgcccggcct      240
202 cagcgagcga gcgagcgcgc agagagggag tggccaactc catcactagg ggttccttgt      300
203 agttaatgat taacccgcca tgctacttat ctac                                 334
```

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L:14 M:270 C: Current Application Number differs, Replaced Current Application Number